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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,955	03/12/2001	Tetsuya Abe	P20333	4816

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EXAMINER

YODER III, CHRISS S

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,955

Applicant(s)

ABE, TETSUYA

Examiner

Chriss S. Yoder, III

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/06/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2, 8, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirasawa et al (US Patent # 6,028,981).
2. In regard to claim 1, note Hirasawa discloses the use of an exposure controller that exposes said image sensor such that a series of still images is consecutively captured, a series of one frame worth of image-pixel signals, corresponding to the series of still images, being read from said image sensor in order (column 13, lines 25-30), a signal processor that generates a series of one frame worth of color image signals in accordance with the series of one frame worth of image-pixel signals, each divided into a red color signal component, a green color signal component and a blue color signal component (column 13, lines 30-40), a color temperature setter that defines a standard color temperature corresponding to illuminating-light, and defines at least one shifted color temperature, which is different relative to said standard color temperature by a given amount (column 13, lines 34-35 and column 14, lines 9-20), a color balance adjuster that adjusts a relative color balance with respect to the red, green

Art Unit: 2612

and blue color signal components in each of the series of one frame worth of color image signals, in accordance with said standard color temperature and said at least one shifted color temperature (column 14, lines 13-17), a recording processor that records at least one of the series of one frame worth of color image signals, adjusted with respect to the relative color balance, in a recording medium detachably installed in said digital still camera (figure 16: S404-S408 ; and figure 14: 240; 240 is a tape that stores the images after the adjustment), and wherein said color balance adjuster adjusts the relative color balance, by changing the color temperature in each of the series of one frame worth of color image signals (column 14, lines 13-17; and figure 16: S404-406).

3. In regard to claim 2, note Hirasawa discloses the use of a color temperature sensor that detects a color temperature of said illuminating-light (column 13, lines 35-40; and figure 14:232), and that said color temperature setter defines a color temperature detected by said color temperature sensor as said standard color temperature (column 13, lines 35-40).

4. In regard to claim 8, note Hirasawa discloses an image-memory for temporarily storing the series of one frame worth of color image signals, adjusted with respect to the relative color balance (column 15, lines 47-50; figure 13: 1101-1103; and figure 14: 235), wherein said recording processor selectively records at least one of the series of one frame worth of color image signals, stored in said image-memory, in said recording medium (figure 16: S404-S406 temporarily store the images in memory 235, then S407-S408 the images are stored in memory 240).

Art Unit: 2612

5. In regard to claim 12, note Hirasawa discloses a white balance adjustment apparatus with an image sensor (figure 14: 106, 229), a series of one frame worth of color image signals being generated on the basis of a series of one frame worth of image-pixel signals read from said image sensor in order (column 13, lines 25-30), said white balance adjustment apparatus comprising a color temperature setter that defines a standard color temperature corresponding to illuminating-light, and defines at least one shifted color temperature, which is different relative to said standard color temperature by a given amount (column 13, lines 34-35 and column 14, lines 9-20), a color balance adjuster that adjusts a relative color balance with respect to red, green and blue color signal components in each of the series of one frame worth of color image signals, in accordance with said standard color temperature and said at least one shifted color temperature (column 14, lines 13-17), and that said color balance adjuster adjusts the relative color balance, by changing the color temperature in each of the series of one frame worth of color image signals (column 14, lines 13-17; and figure 16: S404-406).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al (US Patent # 6,028,981) in view of Takagi (US Patent # 5,486,893).

Art Unit: 2612

7. In regard to claim 3, note Hirasawa discloses a color temperature memory, in which a plurality of color temperatures are stored as data (column 15, lines 1-25; the white balance values are stored in RAM). Therefore, it can be seen that the Hirasawa device creates a plurality of different white balanced images (column 14, lines 9-20), but lacks the use of a selector, operated by a user, to select a specified image that is used to set the standard color temperature. Takagi discloses the use of a selector, that is operated by a user, for selecting from a plurality of displayed images of different settings (column 2, lines 1-16), and that based on the image that is selected, sets the standard settings (column 2, lines 8-16). Takagi teaches that the use of a selector being operated by a user to select the standard settings is preferred in order to allow the user to only capture an image that he finds to be the best, and to assure high quality photographs (column 1, lines 54-61). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Hirasawa device to include the use of a user operated selector as suggested by Takagi in order to set the standard values of color temperature.

8. In regard to claim 9, note Hirasawa discloses an image-memory that temporarily stores the series of one frame worth of color image signals, adjusted with respect to the relative color balance, respectively (column 15, lines 47-50; and figure 13: 1101-1103). Therefore, it can be seen that the primary reference of Hirasawa fails to disclose the use of a display processor that displays a series of reproduced still images, which are reproduced from the series of one frame worth of color image signals stored in said image-memory, on a display provided on said digital still camera, an image selector for

Art Unit: 2612

selecting at least one image to be recorded from the series of reproduced still images, said image selector being operated by an operator, and that said recording processor selectively records at least one frame worth of color image signals, corresponding to a reproduced image selected by said image selector, in said recording medium. Takagi discloses the use of a display processor that displays a series of reproduced still images, which are reproduced from the series of one frame worth of color image signals stored in said image-memory, on a display provided on said digital still camera (column 1, lines 61-67), an image selector for selecting at least one image to be recorded from the series of reproduced still images, said image selector being operated by an operator (column 2, lines 54-61), and that said recording processor selectively records at least one frame worth of color image signals, corresponding to a reproduced image selected by said image selector, in said recording medium (column 2, lines 54-61). Takagi teaches that the use of a display processor that displays a series of reproduced still images and an image selector that is operated by an operator to record an image in said recording medium is preferred in order to allow the user to only capture an image that he finds to be the best, and to assure high quality photographs (column 1, lines 54-61). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Hirasawa to include the use of a display processor that displays a series of reproduced still images and an image selector that is operated by an operator to record an image in said recording medium as suggested by Takagi.

9. In regard to claim 10, note Takagi discloses the display of the reproduced images (column 2, lines 54-61) and that said display processor selectively displays one

Art Unit: 2612

reproduced image from the series of reproduced still images on said display (column 12, lines 27-32; and figure 17).

10. In regard to claim 11, note Takagi discloses the display of the reproduced images (column 2, lines 54-61) and that said display processor displays all of the series of reproduced still images on said display simultaneously (column 11, lines 16-22; and figure 15).

11. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al (US Patent # 6,028,981).

12. In regard to claim 4, note Hirasawa discloses that the color balance adjuster adjusts a gain to said red color signal component and a gain to said blue color signal component, by multiplying a R-gain coefficient of said red color signal component and a B-gain coefficient of said blue color signal component by said red color signal component and said blue color signal component, respectively (figure 16: S401-S403; the R and B signals are increased). Therefore, it can be seen that Hirasawa fails to disclose the use of a color temperature setter defines a red standard-value of the R-gain coefficient and a blue standard-value of the B-gain coefficient, corresponding to said standard color temperature, such that a ratio of said red, green and blue color signal components generally become "1:1:1" with a white-object and said color temperature setter defines a value of the R-gain coefficient and a value of the B-gain coefficient, corresponding to said at least one shifted color temperature, to one of a smaller value and a larger value respectively, compared to said red standard-value and said blue standard-value, and a larger value and smaller value respectively, compared to said red

Art Unit: 2612

standard-value and said blue standard-value. Official notice is taken that the concepts and advantages of the use of a color temperature setter defines a red standard-value of the R-gain coefficient and a blue standard-value of the B-gain coefficient, corresponding to said standard color temperature, such that a ratio of said red, green and blue color signal components generally become "1:1:1" with a white-object are notoriously well known and expected in the art. Although it is not disclosed that the color temperature setter defines a value of the R-gain coefficient and a value of the B-gain coefficient, corresponding to said at least one shifted color temperature, to one of a smaller value and a larger value respectively, compared to said red standard-value and said blue standard-value, and a larger value and smaller value respectively, compared to said red standard-value and said blue standard-value, it would have been obvious to one of ordinary skill in the art to use an upper and lower value of the gain coefficients in order to allow the user to view a temperature change in either direction of the standard value instead of only increasing the value and displaying only one option. Therefore, it would have been obvious to one of ordinary skill in the art to modify the primary device to include the use of a color temperature setter defines a red standard-value of the R-gain coefficient and a blue standard-value of the B-gain coefficient, corresponding to said standard color temperature, such that a ratio of said red, green and blue color signal components generally become "1:1:1" with a white-object and said color temperature setter defines a value of the R-gain coefficient and a value of the B-gain coefficient, corresponding to said at least one shifted color temperature, to one of a smaller value and a larger value respectively, compared to said red standard-value and said blue

Art Unit: 2612

standard-value, and a larger value and smaller value respectively, compared to said red standard-value and said blue standard-value in order to allow the user to in order to allow the user to view a temperature change in either direction of the standard value instead of only increasing the value and displaying only one option.

13. In regard to claim 5, note the primary reference of Hirasawa discloses the use of said color temperature setter defines the R-gain and B-gain coefficients corresponding to said standard color temperature in accordance with a relationship between said standard color temperature and said red and blue standard-values of the R-gain and B-gain coefficients (figure 16: S401- S403), and said color balance adjuster defines values of the R-gain and B-gain coefficients, corresponding to said at least one shifted color temperature, by utilizing said relationship (figure 16: S401- S403). Therefore, it can be seen that the Hirasawa device lacks the use of a standard color temperature and said at least shifted color temperature being represented by a reciprocal of correlated color temperature. Official notice is taken that the concepts and advantages of using a standard color temperature and a shifted color temperature being represented by a reciprocal of correlated color temperature is notoriously well known and expected in the art. Therefore, it would have been obvious to modify the Hirasawa device to include the use of a standard color temperature and said at least shifted color temperature being represented by a reciprocal of correlated color temperature in order to create a good balance between the warm colors and the cool colors.

14. In regard to claim 6, note Hirasawa discloses wherein said color temperature setter defines at least two shifted color temperatures, such that a value-interval between

Art Unit: 2612

a color temperature and adjacent color temperature, among said standard color temperature and said at least two shifted color temperatures, becomes a generally constant interval (figure 16: S401-S403; the interval is set at 20% of the value of the standard temperature).

15. In regard to claim 7, note Hirasawa discloses wherein said color temperature setter defines a first shifted color temperature and a second shifted color temperature, said first shifted color temperature being larger than said standard color temperature by a given shifting-amount, the second shifted color temperature being smaller than said standard color temperature by said given shifting-amount (figure 16: S401-S403; the interval is set at 20% of the value of the standard temperature, when there is more blue, the temperature is cooler, when there is more red, the temperature is warmer).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US005751349A : note the use of a white balance device that allows user correction.

US005198890A : note the use of white balance correction based on color temperature obtained from sensor.

US006650365B1: note the use of white balance correction based on color temperature obtained from sensor.

US006788812B1: note the use of white balance correction based on color temperature obtained from sensor

Art Unit: 2612

US006343147B2: note the use of print preview of changes in white balance.

US005654753A: note the use of white balance correction based on color temperature obtained from sensor.

US20010043279A1: note the use of bracketing of images.

US006665015B1: note the use of an imaging device that creates simulated images to allow the user to select the best image.

US004714955: note the use of reciprocal values in color.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (703) 305-0344. The examiner can normally be reached on M-F: 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Application/Control Number: 09/802,955

Page 12

Art Unit: 2612

CSY

October 29, 2004


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SUPERVISORY PATENT EXAMINER
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